Louisiana Office of Public Health Laboratories	
Test Name	West Nile/St. Louis Encephalitis IgM Duplex MIA
PHL Location	Office of Public Health Laboratory Baton Rouge
CPT Code	86788, 86653
Synonyms	West Nile, SLE, Arbovirus Panel, Flavivirus, Mosquito borne encephalitis, Viral encephalitis
Brief Description of Test	**Prior notification to Infectious Disease Epidemiology required:** **Email: christine.scott-waldron@la.gov** **Phone: 504-568-8301** **24 hour cell: 800-256-2748** **This assay is included as part of the Arbovirus panel.** This is an assay developed by CDC. It is a microsphere-based immunoassay (MIA) for detection of anti-West Nile (WN) virus and anti-St. Louis encephalitis (SLE) virus immunoglobulin M (IgM) antibodies in human serum or CSF using the Bio-Plex Instrument.
Possible Results	Preliminary Result • Nonspecific results for West Nile Virus IgM – Sent to CDC for additional testing ○ Nonspecific indicates either that the results could not be differentiated or that background reactions on the negative antigen inhibited interpretation Final Result • Negative for West Nile Virus IgM • Positive for West Nile Virus IgM The SLE portion of this assay is not validated for use other than by the state Infectious Disease Epidemiology department and therefore SLE results will not show up on the patient report. Specimens that are suspect for SLE will be sent to CDC for additional testing and the CDC report will then be forwarded back to the submitter. Submitters will be notified if a sample is being sent to CDC for additional testing.
Reference Range	Negative
Specimen Type	Serum or CSF
Specimen Container(s):	Red top tubes, Marble top tubes, polypropylene vials
Minimum volume accepted:	1 mL of serum 1.5 mL of CSF

Collection Instructions	Specimens (serum or CSF) should only be collected by personnel that have been properly trained. Care should be taken during specimen collection and handling to avoid generation of aerosols. Serum should be collected in a plastic tube, such as a vacutainer, which does not contain an anticoagulant. The collection tube may or may not contain a serum separator. If collected in a tube without serum separator, serum must be aliquoted into screw cap tubes before shipment to laboratory. Depending on the type of collection tube, the amount of time it will take for the blood to clot could take up to 60 minutes. Separation of serum from cells should take place within 2 hours of collection to prevent erroneous test results according to NCCLS guidelines. Follow the package insert for the collection tube you use. Label specimen with Patient Name and a 2nd unique identifier such as a chart number or medical record number. DOB is not considered unique. Complete a Lab Form 96 to accompany the serum or CSF sample. Lab submission form must be thoroughly completed with patient's first and last name, 2nd patient identifier, gender, date of birth, date of collection, time of collection, test requested, and submitter's name, address, and contact number. **For this assay, date of symptom onset is requested.** Two unique identifiers **MUST** be recorded on the tube **AND** the Lab 96 form. A missing identifier on the tube will be an automatic rejection. If the identifiers are missing from the Lab 96 form, the submitter must be contacted and a new form with this information must be faxed back to the lab before testing will take place.
Storage and Transport Instructions	Specimens should be shipped refrigerated (2-8°C). Specimens can be stored for up to 1 month at 2-8°C. For longer storage, specimens must be frozen at -20°C or colder after collection. Frozen specimens must be shipped on dry ice. If samples are frozen, document the date and time the sample was frozen.
Causes for Rejection	Hemolyzed, lipemic, or icteric specimens must be rejected. Improper labeling, expired collection tubes , unspun samples, tubes that contain less than 90% of the total drawing capacity (QNS), specimen age >1 month if specimen has not been frozen at -20°C or colder. Improper storage and improper transport temperature requirements are also reasons for rejection.
Limitations of the Procedure	Results from West Nile/SLE Duplex MIA test should be considered in the context of all available clinical and laboratory data. Specimens resulting as nonspecific or as SLE specific need to be forwarded to CDC for PRNT. Flaviviruses exhibit significant cross-reactivity with one another and therefore may cause false positive or nonspecific results.

Interfering Substances	Grossly hemolyzed, lipemic, or icteric specimens
References	Duplex Microsphere-Based Immunoassay for Detection of Anti-West Nile Virus and Anti-St. Louis Encephalitis Virus Immunoglobulin M Antibodies", Clinical and Diagnostic Laboratory Immunology, May 2005, p. 566-574 Validation of a Microsphere-Based Immunoassay for Detection of Anti-West Nile Virus and Anti-St. Louis Encephalitis Virus Immunoglobulin M Antibodies", Clinical and Diagnostic Laboratory Immunology, September 2007, p. 1084-1093
Additional Information	Specimens that are West Nile nonspecific, SLE nonspecific or SLE specific are sent to CDC for plaque reduction neutralization test (PRNT). As part of an ongoing study with CDC, West Nile specific samples will also be sent to CDC for PRNT.
Release Date	03/15/2016